binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

4. (Amended) The method of claim 1, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least one order of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

5. (Amended) The method of claim 4, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least three orders of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

6. (Amended) The method of claim 1, wherein the MBP gene was introduced into the cell *ex vivo* by DNA transfection.

7. (Amended) The method of claim 1, wherein the MBP gene was introduced into the cell *ex vivo* by virus-mediated transduction.

8. (Amended) The method of claim 1, wherein the MBP gene was introduced into the cell *ex vivo* by homologous recombination.

9. (Amended) The method of claim 1, wherein the macrolide is an analog of rapamycin, FK506 or cyclosporin.

10. (Amended) The method of claim 1, wherein the MBP gene encodes a FRAP protein, and the macrolide is an analog of rapamycin.

11. (Amended) The method of claim 1, wherein the MBP gene encodes an FK506 binding protein, and the macrolide is an analog of FK506 or rapamycin.

12. (Amended) The method of claim 1, wherein the MBP gene encodes a calcineurin protein, and the macrolide is an analog of FK506 or cyclosporin.

13. (Amended) The method of claim 1, wherein the MBP gene encodes a cyclophilin protein, and the macrolide is an analog of cyclosporin.

14. (Amended) The method of claim 1, wherein the cell is a mammalian cell.

15. (Amended) The method of claim 1, wherein the cell is a human cell.

16. (Amended) A method for preferentially inhibiting genetically engineered T cells in an animal, wherein the genetically engineered T cells include a recombinant gene encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), which method comprises:

(i) introducing into the animal, genetically engineered T cells which include a recombinant gene encoding the mutated MBP, and

(ii) administering to the animal a macrolide which binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

18. (Amended) The method of claim 16, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least one order of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

19. (Amended) The method of claim 16, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least three orders of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

20. (Reiterated) The method of claim 16, wherein the MBP gene was introduced into the cell *ex vivo* by DNA transfection.

21. (Reiterated) The method of claim 16, wherein the MBP gene was introduced into the cell *ex vivo* by virus-mediated transduction.

22. (Reiterated) The method of claim 16, wherein the MBP gene was introduced into the cell *ex vivo* by homologous recombination.

23. (Reiterated) The method of claim 16, wherein the macrolide is an analog of rapamycin, FK506 or cyclosporin.

24. (Reiterated) The method of claim 16, wherein the animal is a mammal.

25. (Reiterated) The method of claim 24, wherein the animal is a human.

26. (Amended) The method of claim 16, wherein the introduced T cells are autologous, allogeneic or xenogeneic to the animal.

29. (Reiterated) The method of claim 16, wherein the expression of the mutated MBP gene is transcriptionally regulated by a T-cell specific transcriptional regulatory sequence.

32. (Amended) An expression construct encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), wherein the mutated MBP binds to or forms a complex with a macrolide which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

33. (Amended) A kit for preferentially inhibiting T cells, comprising

(i) an expression construct of claim 32 encoding a mutated MBP, and

(ii) a macrolide which binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

36. (Amended) An isolated population of cells comprising T cells which include a recombinant gene encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), wherein the mutated MBP binds to or forms a complex with a macrolide, and treatment with the macrolide preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

38. (Amended) A method for rendering T cells susceptible to preferential inhibition, which method comprises introducing into the T cells the expression construct of claim 32.

39. (Amended) The method for providing an animal with preferentially inhibitable T cells, comprising introducing into the animal preferentially inhibitable T cells prepared by the method of claim 38.

44. (Reiterated) The expression construct of claim 32, which encodes a mutated FKBP or cyclophilin.

The claims presented above incorporate changes as indicated by the marked-up versions below.

1. (Amended) A method for preferentially inhibiting [activation of a] T cells[, wherein the T cell or a progenitor cell thereof was engineered *ex vivo* to express] which include a recombinant gene encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), which method comprises contacting the cell with a macrolide which binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially [induces macrolide-dependent inhibition of activation of the T cell in a manner dependent on the expression of the mutated MBP] inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

4. (Amended) The method of claim 1 [or 2], wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least one order of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

5. (Amended) The method of claim 4, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least three orders of magnitude less than its Kd for binding to or forming a complex with wild-type MBP.

6. (Amended) The method of claim 1 [or 2], wherein the MBP gene was introduced into the cell *ex vivo* by DNA transfection.

7. (Amended) The method of claim 1 [or 2], wherein the MBP gene was introduced into the cell *ex vivo* by virus-mediated transduction.

8. (Amended) The method of claim 1 [or 2], wherein the MBP gene was introduced into the cell *ex vivo* by homologous recombination.

9. (Amended) The method of claim 1 [or 2], wherein the macrolide is an analog of rapamycin, FK506 or cyclosporin.

10. (Amended) The method of claim 1 [or 2], wherein the MBP gene encodes a FRAP protein, and the macrolide is an analog of rapamycin.

11. (Amended) The method of claim 1 [or 2], wherein the MBP gene encodes an FK506 binding protein, and the macrolide is an analog of FK506 or rapamycin.

12. (Amended) The method of claim 1 [or 2], wherein the MBP gene encodes a calcineurin protein, and the macrolide is an analog of FK506 or cyclosporin.

13. (Amended) The method of claim 1 [or 2], wherein the MBP gene encodes a cyclophilin protein, and the macrolide is an analog of cyclosporin.

14. (Amended) The method of claim 1 [or 2], wherein the cell is a mammalian cell.

15. (Amended) The method of claim 1 [or 2], wherein the cell is a human cell.

16. (Amended) A method for [selectively] preferentially inhibiting genetically engineered T cells [activation] in [a transplanted T cell comprising] an animal, wherein the genetically engineered T cells include a recombinant gene encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), which method comprises:

(i) [transplanting,] introducing into [an] the animal, [a T cell or a progenitor cell thereof, which T cell or progenitor cell thereof which has been engineered *ex vivo* to express an MBP gene encoding a mutated macrolide binding protein (MBP), the mutated MBP having an altered macrolide-binding specificity relative to the wild-type form MBP,] genetically engineered T cells which include a recombinant gene encoding the mutated MBP, and

(ii) administering to the animal [an amount of] a macrolide [sufficient to inhibit activation of the transplanted T cell or progenitor cell thereof, which macrolide selectively induces macrolide-dependent inhibition of activation of the transplanted T cell, in a manner dependent on the expression of the mutated MBP, when compared to cells expressing a wild-type form of the MBP] which binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

18. (Amended) The method of claim 16, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, K_d, at least one order of magnitude less than its K_d for binding to or forming a complex with wild-type MBP.

19. (Amended) The method of claim 16, wherein the macrolide binds to or forms a complex with the mutated MBP with a dissociation constant, Kd, at least three orders of magnitude less than its Kd for binding to forming a complex with wild-type MBP.

26. (Amended) The method of claim 16, wherein the [transplanted] introduced T cells [is] are autologous, allogeneic or xenogeneic to the animal.

32. (Amended) An expression construct encoding a mutated [FRAP, FKBP, cyclophilin or calcineurin, wherein the mutated protein has an altered macrolide-binding specificity relative to its wild-type form and, in the presence of a macrolide to which it binds, induces macrolide-dependent inhibition of activation of a T cell expressing the mutated protein] macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), wherein the mutated MBP binds to or forms a complex with a macrolide which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

33. (Amended) A kit for [selectively] preferentially inhibiting [activation of a] T cells, comprising

(i) an expression construct of claim 32 encoding a mutated MBP, and

(ii) a macrolide which [selectively binds to the altered protein relative to the wild-type protein and selectively induces macrolide-dependent inhibition of activation of T cells expressing the mutated MBP relative to T cells expressing only the wild-type MBP] binds to the mutated MBP or forms a complex including the mutated MBP, and which preferentially inhibits proliferation of T cells expressing the mutated MBP relative to T cells expressing wild-type MBP.

36. (Amended) An isolated population of cells comprising [a] T cells [or progenitor cell thereof, which is transfected with an expression construct of claim 32] which include a recombinant gene encoding a mutated macrolide binding protein (MBP) selected from an FK506-binding protein (FKBP), cyclophilin, calcineurin, and FKBP:rapamycin associated protein (FRAP), wherein the mutated MBP binds to or forms a complex with a